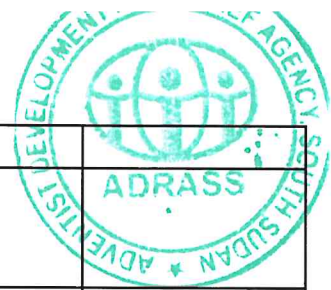


**BILL OF QUANTITIES FOR CONSTRUCTION OF 3 VIP LATRINES OF 2 STANCES
EACH IN KATIKO, KARUKOMUGE AND LOOLIM PRIMARY SCHOOLS**

Item	Description	Unit	Qty for 3 latrines	Rate US\$	Amount US\$
1	EXCAVATION & EARTH WORK				
1.1	Clear off the site to remove topsoil to an average depth of 20 cm	M ³			
1.2	Excavation for pits not exceeding 1.5m deep from the stripped level in any material except rock : include removal of excavated material and depositing where directed: approximately 100m away	M ³			
1.3	Ditto item 1.2 but below 1.5m but not exceeding 3.5m	M ³			
1.4	Ditto, but for strip foundation	M ³			
1.5	Back fill under hard core & around masonry with selected granular borrowed material from outside & well ram in layers not exceeding 20cm thick.	M ³			
1.6	Trees will require protection	Note			
1.7	<u>Planking and strutting (in loose soils)</u>				
a	Allow for Planking and strutting to sides of excavated pits: including removal of fallen materials	Item			
	<u>Water disposal (in water logged soils)</u>				
1.8	Allow for keeping safe all excavations from all types of water including rain by pumping or through any method	Item			
	Excavation and Earth works				
2	<u>CONCRETE WORKS</u>				
2.1	Rate shall include for form work depositing, handling, hoisting into position, vibrating, curing etc. and making good after removal of formwork etc.	Note			

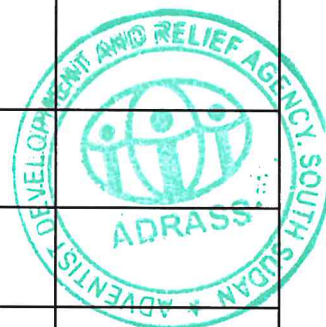


	<u>In Situ Concrete</u>				
2.2	Supplying and placing of Grade 20 concrete as specified on 150mm thick pit floor beds	m ³			
2.3	Ditto: in strip footings	m ³			
2.4	Ditto: external floor beds: 100mm thick	m ²			
2.5	Supplying and placing of Grade 25 concrete as specified in ground beams 250x200mm.	m ³			
2.6	Ditto: suspended slabs: 150mm thick	m ³			
	<u>Formwork</u>				
2.7	Formwork as specified to vertical sides of floor beds	m ²			
2.8	Ditto: edges of ground beams	m ²			
2.9	Ditto: soffites of suspended slabs	m ²			
2.1	Ditto: edges of floor beds	m ²			
2.11	Boxing Formwork to form opening size 450 x 600mm for manholes	No			
2.12	Ditto: opening in slab size 200 x 300mm	No			
	CONCRETE WORKS				
3	<u>REINFORCEMENT: (All provisional)</u>				
3.1	Rate to include for supplying, cleaning, cutting, bending, fabricating, placing and the provision of all necessary temporary fixings and supports etc. including binding wires, bends, hooks, tying wires, chairs, distance blocks, steel separators/spacers (designed laps and m.s. chairs if any included in quantities)	Note			
3.2	Tor steel reinforcement (to BS 4449 and characteristic strength $f_y = 460\text{N/mm}^2$) and Mild steel reinforcement (to BS 4449 and characteristic strength $f_y = 250\text{N/mm}^2$)	Note			
3.3	T10 high yield reinforcement bars to ground beams	kg			
3.4	R6 mild steel bar as links @ 150mm	kg			
3.5	Ditto: to suspended slab @ 200mm centres both ways	kg			

3.6	Lintel size 200 x 200 mm in cross section including 4No. T10 bars and R 6 links at 150mm centres, complete with all formwork as approved by ADRA	m			
REINFORCEMENTS					
4	<u>MASONRY WORK</u>				
4.1	Rate shall include for lifting, handling, weighting all rough and fair cutting, plumbing angles, normal straight cutting, forming rebated reveals and raking out joints for plastering.	Note			
<u>Up to DPC level-Substructure</u>					
4.2	200mm Thick solid concrete block walls: bedded and jointed in cement and sand (1:4) mortar to pit walls	m ²			
4.3	Ditto: 200mm thick blockwork to plinth walls	m ²			
<u>Concrete block work</u>					
4.4	100mm thick walls in standard precast hollow cement blocks in cement sand (1:5) mortar: reinforced with hoop iron wall ties at every alternate course	m ²			
4.5	Ditto: 200mm thick walls	m ²			
Masonry works					
5	<u>THERMAL AND MOISTURE PROTECTION</u>				
<u>Damp proof course</u>					
5.1	Horizontal damp proof course: bituminous: laid horizontally on screeded 20 mm thick (1:3) screeded beds to receive	m ²			
Thermal and Moisture Protection					
6	<u>STRUCTURAL METALWORK</u>				
<u>Definitions</u>					
6.1	“Welding” is deemed to be in accordance with the specification and for the material to which it is to be used. Gusset plates, shoe plates, ends, caps, cleats, brackets, stiffeners, bolts, etc., have been included to the rate of the associated steel work in	Note			



	b.1] All shop fabrication work, marking, delivery, unloading, hoisting, erecting and fixing as per detail drawings.	Note			
	b.2] All welds are 6mm thick fillet weld & allowance for rolling margin.	Note			
	b.3] The weight of weld metal in welded constructions.	Note			
	b.4] Members of any length.	Note			
	b.5] Cutting to size and shape and joints in the running length.	Note			
	b.6] Grinding to a smooth finish, unless otherwise required.	Note			
	b.7] Machine drilled bolt, holes, bolts, nuts and washers, cleats, shoe and gusset plates and all other connections.	Note			
	b.8] After fabrication wire brushed to clean the all steel surfaces and spray painted with two coats of quick drying metal primer zinc phosphate & two coats of matt anti corrosive with necessary accessories.	Note			
	<u>Fabricating and erecting framed structures</u>				
	<u>Roof structures</u>				
6.2	Steel angle bar section 40x40x5mm as roof rafters 2300mm in length spanning 1500mm wide properly anchored in concrete beam to walls.	No			
	<u>Purlins</u>				
6.3	Supplying & fixing of Steel Hollow sections as purlins , 60 x 40 x 4mm: welded to roof trusses (<i>measured separately</i>) at 900mm centres: complete with all the required paint works and all	M			
6.4	Allow sum for any other item required for the construction and completion of the roof framework, which are not covered under the above items (<i>The items will have to be approved and paid accordingly</i>)	Item			
	Structural Metal works				
7	<u>ROOF COVERINGS</u>				



	Rate shall include;				
7.1	All, rivets, nails, clips, strips and delivering and fixing in position.	Note			
7.2	All timber shall apply Priming backs & applying two coats of an approved wood preservative before fixing.	Note			
7.3	All timber shall have final finish; Two coat of wood preservative, two coats of primer, two coats of wood sheen spray paint.	Note			
	<u>Roof Covering</u>				
7.4	Supplying & fixing of gauge 28 pre-painted IT4 profiled roofing sheets (0.5mm) of approved colour: fixed with screws to 60 x 40 x 4mm steel purlins (<i>measured separately</i>) and rubber capping to tops of bolts	m ²			
	<u>Valance / Barge Board</u>				
7.5	25x225mm high timber valance board / barge board bolted to mild steel plate at the ends of rafters with 2 No. 6mm diameter bolts : plates welded to edges of rafters: all complete with approved wood preservative as specified.	M ³			
	<u>Roof Covering</u>				
8	<u>METAL WORK- DOORS AND WINDOWS</u>				
	<u>Painting / Final Finish</u>				
8.1	Unless otherwise stated all surface of doors & windows, casements and plywood door sashes shall be finished with one coat of anti rust primer, two coats of high gloss spray paint.	Note			
	<u>Doors</u>				

8.2	Metal door set, type D , of size 800x2200mm high overall, comprising of 60x40x4mm RHS steel sections as door frame fully welded and mitred at corners, 40x25x3mm RHS steel section shutter frames: infilled with 1.8mm thick mild steel plate on two faces: include for all necessary door locks, ironmongery, final finish & fixing to concrete or blockwork as per Engineers approval.	Nos			
8.3	Window, type W , steel, size 600x600mm high overall comprising of 60x40x4mm RHS frame fully welded and mitred at corners, Zed & Tee section side hung glass infilled window sashes: include for all necessary fasteners, burglary proof and ironmongery, final finish & fixing to concrete or blockwork as per drawings.	Nos			
Doors and Windows					
9	<u>FINISHES</u>				
	<u>Wall Finishes</u>				
9.1	20mm thick cement and sand (1:5) render on concrete or blockwork: wood floated hard and smooth: to external walls	M ²			
9.2	12mm thick cement lime sand (1:1:5) plaster finished smooth with lime putty or concrete or blockwork: to surfaces of	M ²			
	<u>Floor finishes</u>				
9.3	40mm Thick coloured cement and sand (1:3) screed : steel trowelled hard and smooth to internal floors	M ²			
	<u>Plinth Plaster</u>				
9.4	20mm Thick cement and sand (1:3) render : wood floated hard and smooth to plinths : externally	M ²			
9.5	20mm Thick cement and sand (1:3) render : steel floated hard and smooth to pit walls : internally	M ²			
	<u>PAINTING</u>				

9.6	Rate shall include for preparation of surface cleaning down, smoothing, knotting, stepping etc. protection of floors and fitting, removing & replacing door and window, furniture, and cleaning windows	Note			
9.7	Paint shall be from approved color with approved manufacturer.	Note			
	Wall Painting				
9.8	Prepare and apply one coat of primer and two coats of exterior quality weather shield paint of approved colour and quality to rendered external surfaces of walls and concrete.	M ²			
9.9	Ditto: rendered plinth surfaces	M2			
9.1	Prepare and apply one coat of primer and two coats of interior quality emulsion paint of approved colour and quality to plastered internal faces of walls and concrete.	M2			
	Finishes				
10	MISCELLANEOUS WORKS				
	RAMP ENTRANCE AND HANDRAIL				
10.1	Place 25 cm hardcore on compacted soil at the ramp entrance of the latrine providing a maximum of 6% slope.	M ²			
	Place 5 cm thick lean concrete class C-5, 150 kg cement/m3 of concrete	M ²			
10.2	Place class C-20 concrete 10cm thick ramp floor with minimum cement content of 320 kg/m3 of cement	M ²			
10.3	Fix 1" galvanized steel pipe or equivalent material handrail spaced at 30 cm c/c, price shall include welding and other work required to fix the handrail internally for the room wall and for the ramp externally	M			
10.4	Produce and fix precast concrete manhole cover	Pcs			
	VISILITY	Item			
	Ramps, rail and visibility				

	TOTAL AMOUNT				
	SUMMARY				
S/N	DESCRIPTION/PARTICULARS	AMOUNT IN USD			
1	EXCAVATION & EARTH WORK				
2	CONCRETE WORKS				
3	REINFORCEMENTS				
4	MASONRY WORK				
5	THERMAL AND MOISTURE PROTECTION				
6	STRUCTURAL METALWORK				
7	ROOF COVERINGS				
8	METAL WORK- DOORS AND WINDOWS				
9	FINISHES				
10	MISCELLANEOUS WORKS				
	TOTAL SUM FOR 3 LATRINES				



Parom yda

right to have social welfare both in a camp
right to have medicine both in a camp.

10 marks

5. What is protection

b) what are the main protection concerns facing the Refugees Returnees in your community

the Returnees facing different issues these are listed below.

10 marks

- 1: Returnees have no shelters (Tukpui).
- 2: Returnees have no blanket, mosquito net.
- 3 Returnees have no plastic sheet during Rain.
- 4 Returnees have no food provided for them.

Note: these are all issues faced by Returnees.